# 28th Bomb Wing 2007 Economic Impact Analysis





# **Table of Contents**

PREFACE		
	Commander's Comments	i
	Values, Vision and Mission	ii-iii
	From the Comptroller	iv
PART I		
Background		
	Methodology	2
	Availability of Information	2 3
	B-1B Fact Sheet	3
PART II		
Wing Assets		
	Description of Capital Assets	8
	Current Value of Capital Assets	9
	Actual Retail Sales	9
PART III		
Wing Economic Impact		
	Personnel	11
	Annual Payroll	12
	Expenditures	13
	Estimate of Indirect Jobs Created	14
	Total Economic Impact Estimate	14
	Personnel Charts	15
	Payroll Charts	16
	Direct Expenditures Charts	17
	Total Economic Impact Charts	18
PART IV	•	
Miscellaneous Information		
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Ellsworth Organizations	20

Ellsworth is home to America's "roving linebacker" bomber -- the mighty and versatile B-1B Lancer. It is one of only two operational bases to possess this lethal combat platform. We maintain these airframes, keep our Airmen trained and ready and practice our realworld mission of putting bombs on target. This commitment and dedication ensures our wartime readiness to deliver precise airpower in any combat theater anywhere in the world at the direction of the combatant commander.

The 28th Bomb Wing is more than just the B-1, it's a team that makes the success of the B-1 mission possible -- a professional military organization comprised of outstanding people doing outstanding things. Servicemembers here define excellence and hold unlimited potential to exceed the demands of tomorrow. Ellsworth is committed to empowering its people to do the right thing, the right way, at the right time and at the right cost.

This Economic Impact Analysis details the benefit of Ellsworth's partnership with our surrounding communities in the beautiful Black Hills. However, our kinship with the local area branches beyond simple economics. Our installation has always enjoyed a working relationship with our local civic leaders based on a spirit of sincere respect and support. Our Airmen and their families have truly embraced our community by lending a little more than 6,000 total hours of their off-duty time to more than 40 local charity and volunteer organizations.

The excellent atmosphere of community relations is demonstrated regularly through continued interaction with the community at events ranging from parades to reunions. Ellsworth also participates in the Military Affairs Committee and involves more than 10 civic leaders in base events as honorary commanders. In reflection, many businesses here offer military discounts and hold military appreciation days for servicemembers and their families. The lateral support between Ellsworth and our local township is top-notch and I am proud to call this community my home.

The information in this guide will answer your economic questions about Ellsworth. Identical values and a sense of patriotism solidify the relationship between our Airmen and the surrounding areas. Our individual communities will grow stronger in the future as we continue to work together.

Frest A. Vancer Harry

Scott A. Vander Hamm, Col., USAF Commander, 28th Bomb Wing



### **Air Combat Command**

### Values, Vision and Mission

**CORE VALUES** 

Integrity First, Service Before Self, Excellence in All We Do

**VISION** 

Air Force People Building the World's Most Respected Air and Space Force — Global Power and Reach for America

**MISSION** 

Air Combat Command Professionals Providing the World's Best Air Forces by Delivering Rapid, Decisive and Sustainable Airpower



# 28th Bomb Wing

Values, Vision and Mission

Integrity First, Service Before Self, Excellence in All We Do

**CORE VALUES** 

To be the "backbone" of global engagement for the 21st century

VISION

Deliver decisive combat power for global response

**MISSION** 



# FROM THE COMPTROLLER

This Economic Impact Analysis for Ellsworth Air Force Base is prepared annually by the Financial Analysis Flight to provide information to the public concerning our significant economic impact on the local area. Items addressed include: personnel assigned to or employed by the base; annual payroll of all assigned and employed personnel; expenditures for construction, services, and procurement of materials, equipment and supplies; and estimated number and dollar value of indirect jobs created by Ellsworth's presence.

This statement should provide the reader with an understanding of the vital economic and personal relationship between Ellsworth AFB and the surrounding communities.

Lisa M. Stanley, Capt., USAF

Chief, Financial Analysis

Christine M. Wasdin, Lt. Col., USAF

Commander, 28th Comptroller and Contracting Squadron



### **METHODOLOGY**

The total economic impact of a base on its economic area is computed by summing annual base payroll, annual base expenditures. and the estimated dollar value of indirect jobs created. An economic area is generally defined as a Metropolitan Statistical Area (MSA). Each MSA has unique indirect job multipliers that are calculated by the Bureau of Labor Statistics (BLS) and are used to estimate the value of the indirect jobs created. The average annual pay for the local area was obtained from the Rapid City Chamber of Commerce, using South Dakota Employment Security Commission Labor Market Information Division data. This analysis was prepared using a Secretary of the Air Force Directorate of Economic and Business Management (SAF/FMCE) program that was developed within the parameters of the Office of the Secretary of Defense's Economic Impact Analysis model. The economic impact takes into account both Appropriated Funds (APF) and Non-Appropriated Funds (NAF).

# AVAILABILITY OF INFORMATION

This Economic Impact Analysis (EIA) provides key information about the resources and economic impact Ellsworth AFB has on the surrounding communities. Release of this document to non-military individuals must be approved by the Public Affairs Office at Ellsworth AFB SD commercial (605) 385-5056 or DSN 675-5056. Questions concerning the content of this analysis should be directed to the Public Affairs Office.

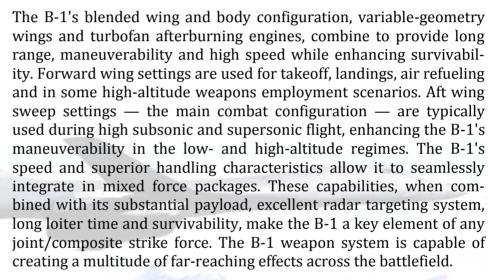
Information contained in this analysis is current as of 30 September 2007. This analysis was prepared by 28 CPTS/FMA, Laurie Paulsen at DSN 675-1541 and Senior Airman Anthony Coudriet at DSN 675-1560 or commercial (605) 385-1541 or 1560.

### **B-1B Lancer Fact Sheet**

### **MISSION**

Carrying the largest payload of both guided and unguided weapons in the Air Force inventory, the multi-mission B-1 is the backbone of America's long-range bomber force. It can rapidly deliver massive quantities of precision and non-precision weapons against any adversary, anywhere in the world, at any time.

### **FEATURES**



The B-1 is a highly versatile, multi-mission weapon system. The B-1's offensive avionics system includes high-resolution synthetic aperture radar, capable of tracking, targeting and engaging moving vehicles as well as self-targeting and terrain-following modes. In addition, an extremely accurate Global Positioning System-aided Inertial Navigation System enable aircrews to autonomously navigate globally, without the aid of ground-based navigation aids as well as engage targets with a high level of precision. The recent addition of Combat Track II radios permit an interim secure beyond line of sight reach back connectivity until Link-16 is integrated on the aircraft. In a time sensitive targeting environment, the aircrew can receive targeting data from the Combined Air Operations Center over CT II, and then update mission data in the offensive avionics system to strike emerging targets rapidly and efficiently. This capability was effectively demonstrated during operations Enduring Freedom and Iraqi Freedom.



The B-1's self-protection electronic jamming equipment, radar warning receiver (ALQ-161) and expendable countermeasures (chaff and flare) system complements its low-radar cross-section to form an integrated, robust onboard defense system that supports penetration of hostile airspace. The ALQ-161 electronic countermeasures system detects and identifies the full spectrum of adversary threat emitters then applies the appropriate jamming technique either automatically or through operator manual inputs. Chaff and flares are employed against radar and infrared threat systems.

B-1 capabilities are being enhanced through the completion of the Conventional Mission Upgrade Program. This program has already improved lethality by adding the ability to carry up to 30 cluster munitions (CBU-87, -89, -97), a Global Positioning System receiver, an improved weapons interface that allows the carriage of Joint Direct Attack Munitions guided weapons and advanced secure radios (ARC-210). Survivability is enhanced through the addition of the ALE-50 Towed Decoy System which decoys advanced radar guided surface-to-air and air-to-air missile systems.

The CMUP adds improved avionics computers which allow the employment of additional advanced guided precision and non-precision weapons: 30 Wind-Corrected Munitions Dispensers (CBU-103, -104, -105 WCMD), 12 AGM-154 Joint Standoff Weapons or 24 AGM-158 Joint Air-to-Surface Standoff Missile. The B-1 will be able to carry and employ any mix of these weapons (a different type of weapon in each of the three weapons bays). The B-1 will also be the first platform to carry the extended range version of the JASSM. These modifications significantly increase B-1 combat capability. Additionally, the B-1s assigned to Ellsworth AFB are the first in the inventory to forward deploy with the Sniper Targeting Pod. This new addition will enhance support to ground forces through the expedition and improved coordination of targets to be struck.

Future planned modifications build on this foundation provided by the new avionics computers. Radar sustainability and capability upgrades will provide a more reliable system in addition to an ultra high-resolution capability that may include automatic target recognition features. The addition of Link-16 will allow the B-1 to operate in the integrated battlefield of the future. Cockpit modifications will relieve reliability problems and increase aircrew situational awareness and provide an integrated flow of information.

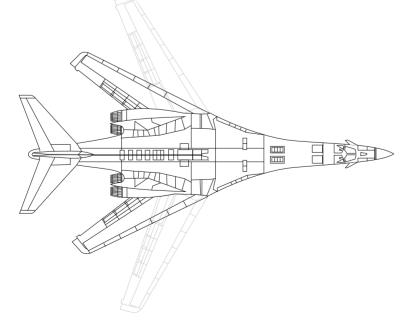
The B-1A was initially developed in the 1970s as a replacement for the B-52. Four prototypes of this long-range, high speed (Mach 2.2) strategic bomber were developed and tested in the mid-1970s, but the program was canceled in 1977 before going into production. Flight testing continued through 1981.

The B-1B is an improved variant initiated by the Reagan administration in 1981. Major changes included the addition of additional structure to increase payload by 74,000 pounds, an improved radar and reduction of the radar cross section by an order of magnitude. The inlet was extensively modified as part of this RCS reduction, necessitating a reduction in maximum speed to Mach 1.2.

The first production B-1 flew in October 1984 and was delivered to Dyess Air Force Base, Texas, in June 1985. Initial operational capability was achieved on Oct. 1, 1986. The final B-1 was delivered May 2, 1988.

The B-1 holds almost 50 world records for speed, payload, range, and time of climb in its class. The National Aeronautic Association recognized the B-1 for completing one of the 10 most memorable record flights for 1994. The most recent records were made official in 2004.

The B-1 was first used in combat in support of operations against Iraq during Operation Desert Fox in December 1998. In 1999, six B-1s were used in Operation Allied Force, delivering more than 20 percent of the total ordnance while flying less than 2 percent of the combat sorties. Eight B-1s were deployed in support of Operation Enduring Freedom. B-1s dropped nearly 40 percent of the total tonnage during the first six months of OEF. This included nearly 3,900 JDAMs, or 67 percent of the total. All of this was accomplished while maintaining an impressive 79 percent mission capable rate.



# GENERAL CHARACTERISTICS

Primary Function: Long-range, multi-role heavy bomber

**Contractor:** Boeing, North America (formerly Rockwell International, North American Aircraft); Offensive avionics, Boeing Military Airplane; Defensive avionics, EDO Corporation

**Power Plant:** Four General Electric F101-GE-102 turbofan engine with afterburner

Thrust: 30,000-plus pounds with afterburner, per engine

Wingspan: 137 feet (41.8 meters) extended forward, 79 feet (24.1

meters) swept aft

Length: 146 feet (44.5 meters)
Height: 34 feet (10.4 meters)

Weight: approximately 90,000 pounds (86,183 kilograms)

Maximum Takeoff Weight: 477,000 pounds (216,634 kilograms)

Fuel Capacity: 265,274 pounds (120, 326 kilograms)

**Payload:** 75,000 pounds (34,019 kilograms) **Speed:** 900-plus mph (Mach 1.2 at sea level)

Range: Intercontinental

**Ceiling:** More than 30,000 feet (9,144 meters)

**Armament:** 24 GBU-31 GPS-aided JDAM (both Mk-84 general purpose bombs and BLU-109 penetrating bombs) or 24 Mk-84 2,000-pound general purpose bombs; 8 Mk-85 naval mines; 84 Mk-82 500-pound general purpose bombs; 84 Mk-62 500-pound naval mines; 30 CBU-87, -89, -97 cluster munitions; 30 CBU-103/104/105 WCMD, 24 AGM-158 JASSMs or 12 AGM-154 JSOWs

**Crew:** Four (aircraft commander, copilot and two weapon systems officers

Unit Cost: \$283.1 million (fiscal 98 constant dollars)

**Initial Operating Capability:** October 1986

Inventory: Active force, 65 (test, 2); ANG, 0; Reserve, 0

# POINT OF CONTACT

**Air Combat Command,** Public Affairs Office; 115 Thompson Street, Suite 211; Langley AFB, VA 23665-1987

DSN 574-5014 or (757) 764-5014

e-mail: acc.pai@langley.af.mil



# **Description of Capital Assets**

## As of 30 September 2007

DESCRIPTION OF CAPITAL ASSETS				
LAND				ACRES
On-base				5,409
Off-base				2,511
TOTAL:				7,920
RUNWAY				FEET
Length				13,500
Width				300
BUILDINGS				
Total Structures				381
Total Square Footage				4,524,443
MILITARY FAMILY HOUSING UNITS	2BR	3BR	4BR	TOTAL
Officer	0	119	62	181
Enlisted	452	419	92	963
TOTAL:				1,144
DORMITORY QUARTERS		OCCUPANCY	CAPACITY	PERCENTAGE
Airman		541	742	73%
TEMPORARY QUARTERS			ROOMS	CAPACITY
Visitor Quarters			80	80
Distinguished Visitor Quarters			8	8
Temporary Lodging Facilities			30	150
TOTAL:			118	238
AIRCRAFT				ASSIGNED
B-1 Bombers Assigned				29

# **Current Value of Capital Assets and Sales**

As of 30 September 2007

CURRENT VALUE OF CAPITAL ASSETS		
WEAPONS SYSTEMS		
B-1 Bombers	-1 Bombers \$ <b>8,209,900</b>	
INVENTORIES (Sales outlets)		
Commissary	\$	590,000
Army and Air Force Exchange Service	\$	2,875,138
Non-Appropriated Fund Activities	\$	538,000
TOTAL:	\$	4,003,138
CAPITAL ASSETS		
Runway	\$	19,454,428
Real Property On-base	\$	501,193,185
Real Property Off-base	\$	2,999,948
Military Family Housing	\$	31,712,332
Leased Housing	\$	73,360,178
On/Off-base land	\$	949,376
TOTAL:	\$	629,669,447
TOTAL VALUE OF ASSETS		TOTAL
TOTAL:	\$ 8	3,843,572,585

ACTUAL RETAIL SALES	
SALES OUTLET	
Commissary	\$ 13,293,890
Army and Air Force Exchange Service	\$ 14,443,901
Non-Appropriated Fund Activities	\$ 1,143,600
TOTAL:	\$ 28,881,391
ACTIVITY REVENUE (Fees and Charges)	
Non-Appropriated Fund Activities	\$ 2,097,300
TOTAL REVENUES	
TOTAL:	\$ 30,978,691



Table 1
Personnel by Classification and Housing Location

	LIVING	LIVING	
CLASSIFICATION	ON BASE	OFF BASE	TOTAL
1. APPROPRIATED FUND MILITARY			
Active-Duty Military	1,686	1,458	3,144
Air Force Reserve/Air National Guard	0	0	0
Non-Extended Active Duty Reserve/Air Nat'l Guard	0	0	0
Trainees/Cadets	N/A	N/A	0
TOTAL:	1,686	1,458	3,144
2. ACTIVE DUTY MILITARY DEPENDENTS			
	1,738	2,538	4,276
TOTAL:	1,738	2,538	4,276
3. APPROPRIATED FUND CIVILIANS			
General Schedule			303
Federal Wage Board			114
Other *			34
TOTAL:			451
4. NON-APPROPRIATED FUND CONTRACT CI-			
VILIANS AND PRIVATE BUSINESS			
Civilian Non-Appropriated Funds (NAF)			199
Civilian Base Exchange (BX)			85
Contract Civilians (not included elsewhere)			138
Private Businesses On Base, By Type:			
Branch Banks/Credit Union			53
Other Civilians (not included elsewhere)			95
TOTAL:			570
TOTAL PERSONNEL:			8,441

<sup>\*</sup> Defense Commissary Agency (DECA) employees

**Table 2** *Annual Payroll by Classification and Housing Location* 

CLASSIFICATION		LIVING ON BASE		LIVING OFF BASE		TOTAL
1. APPROPRIATED FUND MILITARY		ON BAGE		OTT BAGE		TOTAL
Active-Duty Military	\$	68,051,414	\$	57,308,579	\$	125,359,993
Air Force Reserve/Air National Guard	\$	-	\$	-	\$	-
Non-Extended Active Duty Reserve/Air Nat'l Guard	Υ	N/A	Ψ	N/A	\$	_
Trainees/Cadets		N/A		N/A	\$	-
TOTAL:	\$	68,051,414	\$	57,308,579	\$	125,359,993
2. APPROPRIATED FUND CIVILIANS						
General Schedule					\$	20,473,500
Federal Wage Board					\$	6,527,100
Other *					\$	1,482,522
TOTAL:					\$	28,483,122
3. NON-APPROPRIATED FUND CONTRACT (	CIV	ILIANS AND F	PRIVATE BU	JSINESS EN	ΛPI	OYEES
Civilian Non-Appropriated Fund (NAF)					\$	2,316,000
Civilian Base Exchange (BX)					\$	1,660,357
Contract Civilians (not included elsewhere)					\$	4,162,486
Private Businesses On Base, By Type:						
Credit Union					\$	799,450
Other Civilians (not included elsewhere)					\$	1,433,613
TOTAL:					\$	10,371,906
TOTAL ANNUAL PAYROLL:					\$	164,215,021

<sup>\*</sup> Defense Commissary Agency (DECA) employee wages

Table 3
Expenditures for Construction, Services and Procurement of
Materials, Equipment and Supplies<sup>1</sup>

	ACT	ACTUAL ANNUAL		
CLASSIFICATION	EXPENDITURE			
1. CONSTRUCTION				
Military Construction Program	\$	17,110,000		
Non-Appropriated Fund	\$	228,500		
Military Family Housing	\$	9,490,000		
O&M	\$	11,052,000		
Clinic	\$	3,940,000		
Other	\$	501,300		
TOTAL:	\$	42,321,800		
2. SERVICES				
Services Contracts *	\$	2,954,414		
Other Services (not included elsewhere)	\$	4,011,575		
TOTAL:	\$	6,965,988		
3. MATERIAL, EQUIPMENT, AND SUPPLY PROCUREMENT				
Commissary	\$	10,036		
Base Exchange (BX)	\$	5,357,372		
Health (TRICARE, Government cost only)	\$	21,329,000		
Education (Impact aid and tuition assistance)**	\$	8,479,153		
TDY	\$	1,476,805		
Other Materials, Equipment & Supplies (not included elsewhere)	\$	6,533,503		
TOTAL:	\$	43,185,869		
TOTAL ANNUAL EXPENDITURES:	\$	92,473,657		

<sup>&</sup>lt;sup>1</sup> Does not include contracts for services supplied to other Air Force installations

<sup>\*</sup> Includes only contracts in the local economic area or contracts requiring the use of locally supplied goods and services.

<sup>\*\*</sup> Includes monies owed from previous year from Dept of Education

**Table 4**Estimate of Indirect Jobs Created

		TOTAL		TOTAL
TYPE OF PERSONNEL		BASE JOBS	Multiplier	INDIRECT JOBS
Active Duty Military		3,144	0.29	912
Reserve/ANG/Trainees		-	0.13	-
Appropriated Fund Civilians		451	0.43	194
Other Civilians		570	0.43	245
	TOTAL:	4,165		1,351

ESTIMATED NUMBER OF INDIRECT JOBS CREATED: 1,351

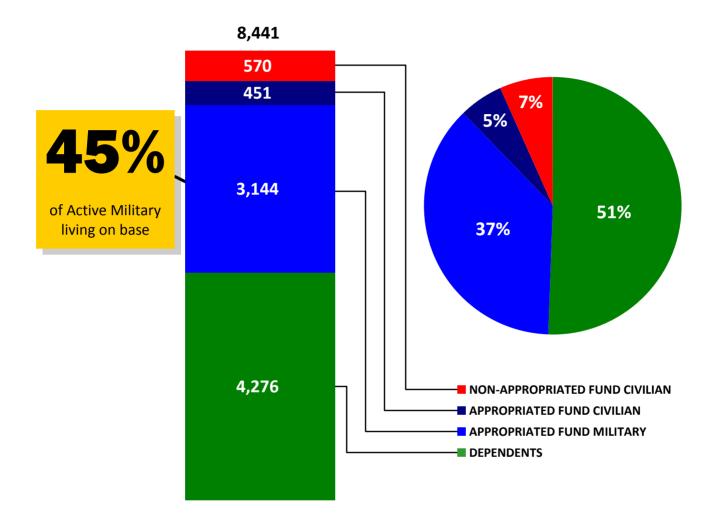
LOCAL COMMUNITY AVG ANNUAL PAY: \$ 30,460

ESTIMATED ANNUAL DOLLAR VALUE OF JOBS CREATED: \$ 41,151,460

# **Table 5** *Total Economic Impact Estimate*

PERSONNEL COSTS					
Military	\$	125,359,993			
Federal Civilian	\$	28,483,122			
Other Civilian	\$	10,371,906			
TOTAL ANNUAL PAYROLL:	\$	164,215,021			
ANNUAL DIRECT EXPENDITURES					
TOTAL ANNUAL EXPENDITURES:	\$	92,473,657			
<b>ESTIMATED ANNUAL DOLLAR VALUE OF JOBS CREATE</b>	D				
Estimated Indirect Jobs Created		1,351			
Average Annual Pay x	\$	30,460			
TOTAL VALUE OF JOBS CREATED:	\$	41,151,460			
TOTAL ANNUAL ECONOMIC IMPACT ESTIMATE					
GRAND TOTAL:	\$	297,840,138			

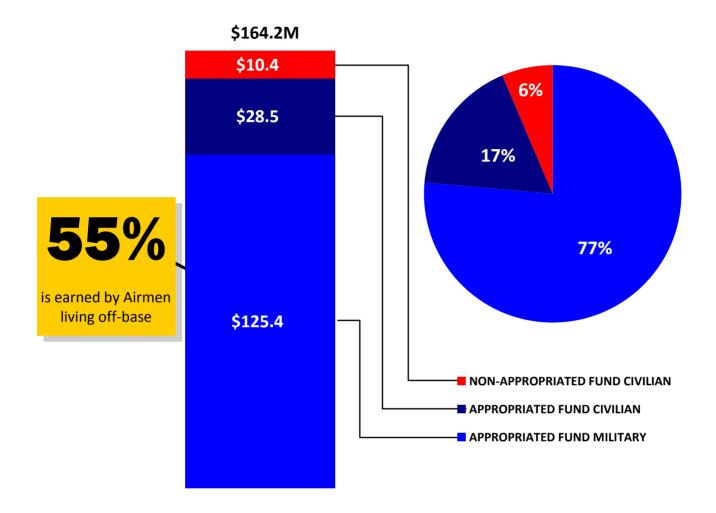
### **Personnel**



### **QUICK FACT**

Non-appropriated funds personnel are employed by the Ellsworth Morale and Recreation fund; they watch our children, run our recreation facilities and help ensure the readiness of the force. The funding for these employees is not directly appropriated by Congress, but is generated by the activities on base and grants from AAFES taken from Base Exchange profits.

# Payroll (\$M)

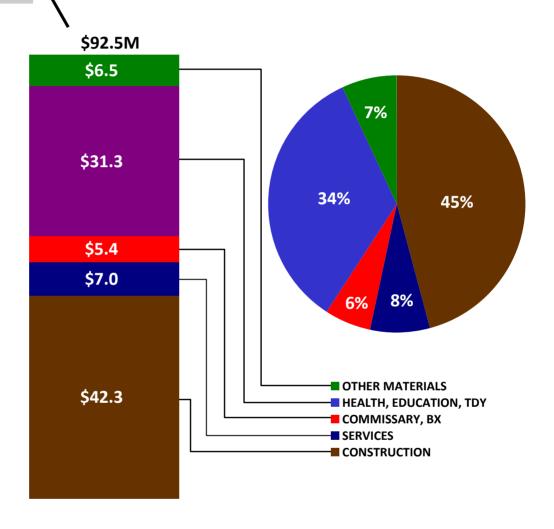


### **QUICK FACT**

Military pay is centrally managed at the Air Force level. Civilian pay is locally managed based on a fair share of the total Air Combat Command CIVPAY budget. Civilian pay is budgeted based upon total Unit Manning Document authorizations and an average workyear cost derived from prior year estimates. Non-appropriated civilian pay is set, drawn directly from funds earned through operations of 28th Force Support Squadron activities.

# **Direct Expenditures (\$M)**

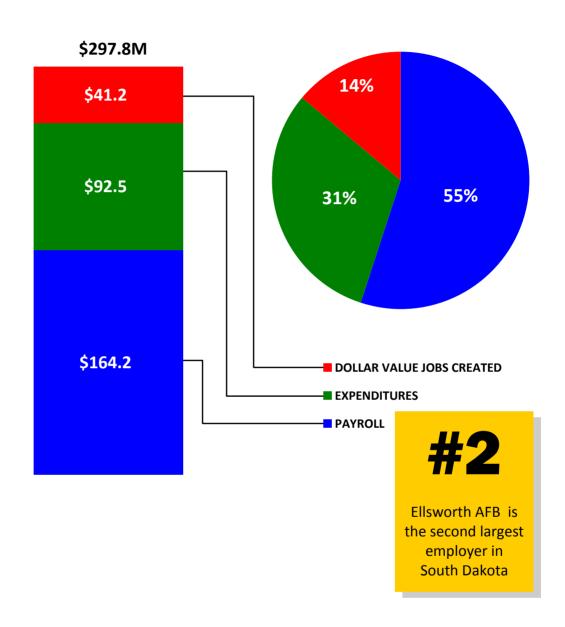




Ellsworth Air Force Base has a robust, active small and local business program to maximize the amount of funds that go to small and disadvantaged businesses. The base is actively tracked by Air Combat Command and Headquarters, U.S. Air Force to ensure that, whenever possible, contract awards go to local or historically challenged business.

### QUICK FACT

# **Total Economic Impact (\$M)**



### **QUICK FACT**

Ellsworth is the second-largest employer in South Dakota and the largest in the West River region.

 ${\it Ellsworth\ Air\ Force\ Base\ is\ the\ sixth-largest\ city\ in\ South\ Dakota}.$ 

*The Douglas School District is the eleventh-largest of 165 in the state.* 



# **Ellsworth Organizations**

### **HOST: 28th Bomb Wing**

### 28th Bomb Wing

Commander/Vice Commander

Chaplain

28th Comptroller Squadron

Equal Employment Opportunity

Flight Safety

**Grounds Safety** 

Historian

**Inspector General** 

Judge Advocate

**Manpower Office** 

**Public Affairs** 

**Treaty Compliance Office** 

Weapons Safety

Wing Operations Center

### 28th Operations Group

34th Bomb Squadron

37th Bomb Squadron

28th Operations Support Squadron

### 28th Maintenance Group

28th Aircraft Maintenance Squadron

28th Maintenance Squadron

28th Maintenance Operations Squadron

28th Munitions Squadron

### **28th Mission Support Group**

28th Civil Engineer Squadron

28th Communications Squadron

28th Contracting Squadron

28th Force Support Squadron

28th Logistics Readiness Squadron

28th Security Forces Squadron

### 28th Medical Group

28th Medical Support Squadron

28th Medical Operations Squadron

### **Associate Units**

Army-Air Force Exchange Service

Air Force Audit Agency

Air Force Junior ROTC

American Red Cross

Defense Commissary Agency

**Defense Investigative Service** 

Defense Reutilization and Marketing Office

Detachment 3, Combat Command (AFIT)

Detachment 8, 372d Training Squadron

Detachment 226, AFOSI

Raytheon Support Services Company

USAF Judiciary 4th Circuit

Belle Fourche Electronic Scoring Site

(Lockheed-Martin)

82nd Weapons of Mass Destruction

Civil Support Team



